# REAL-TIME WIRELESS EXCHANGE OF OBJECTS

## ABSTRACT OF THE DISCLOSURE

A system, method, and computer program product for automatically exchanging objects in a wireless mobile environment. The invention operates by transmitting a request for objects to a source, receiving at least some of the requested objects from the source, and processing the received objects. The invention uses a frequency down-conversion module that comprises a switch, a capacitor coupled to the switch, and a pulse generator coupled to the switch. The pulse generator outputs pulses to the switch, where the pulses have apertures and cause the switch to close and sub-sample a carrier signal over the apertures. Energy is transferred from the carrier signal and stored using the capacitor during the apertures of the pulses, and a lower frequency signal is generated from the transferred energy. The invention also uses a frequency up-conversion module that comprises an energy transfer signal generator, a switch module controlled by the energy transfer signal generator, and a storage module coupled to the switch module.